

Construction Cost of Large-Scale IDC Data Centers



Overview

Data center construction costs average \$10-\$12 million per MW, and AI-optimized facilities can reach as high as \$20+ million per MW. The data centre market is entering a new era, driven by the explosive growth of artificial intelligence (AI) and surging global demand. This helps businesses stay competitive, agile and. As digital transformation accelerates, data centers are becoming the backbone of the digital economy, supporting everything from AI workloads to real-time analytics and autonomous vehicles. Key highlights include: Power availability has overtaken location and land costs as the top factor for site selection. Along with China's Alibaba, Tencent, and Baidu, they are investing billions into new server farms to support growing digital demand. This article deconstructs the economic fundamentals of the modern data center, providing a clear and accessible breakdown of the.



Article Content

Deconstructing the Data Center: A Look at the Cost

By analysing a benchmark 100-megawatt facility and exploring the different data center models, we explore the immense upfront investments and

Data centre construction cost index 2025-2026 | Turner & Townsend

Now in its ninth year, the Data centre construction cost index 2025-2026 remains the industry's only cost index focused exclusively on construction. It offers unmatched global insights to help businesses

Building data centers bigger, faster | McKinsey

These new models and increasing compute demand require a reevaluation of the design and construction methods used to build data centers so that stakeholders can capitalize on

Frontier Data Centers

Open database of AI data centers using satellite and permit data to show compute, power use, and construction timelines.

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AI Market Trends 2026: Global Investment, Risks, and

Discover key market trends as AI becomes the central force influencing growth, earnings, geopolitics, and investment strategy across global markets in

Data centre cost trends

To the right is an indicative average percentage allocation of construction costs for air-cooled versus liquid-cooled data centres in the US, spread across the main cost categories included within our data

Senior CSA Cost Estimator

Turner & Townsend is seeking an experienced Senior Cost Estimator to support a high-profile client's large-scale, multi-building data center campus programs. The role focuses on developing detailed

How Much Does it Cost to Build a Data Center?

How much does it cost to build a data center, including construction of the building, and equipping the facility with power and cooling infrastructure to

Data center demands

McKinsey research shows that the capacity needs for AI and non-AI workloads could almost triple by 2030, with AI capacity increasing 3.5 times and

Data Center Construction Costs: Complete Budgeting

Building a data center costs millions, if not billions. Discover the key cost components, hidden logistics expenses, and how technology investment

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Frontier Data Centers

Frontier Data Centers Our open database of large AI data centers, using satellite and permit data to track compute, power use, and construction

IDC MarketScape: Latin America Public Cloud Infrastructure as a

IDC MarketScape: Latin America Public Cloud Infrastructure as a Service 2025 Vendor Assessment Source: IDC, 2025 Please see the Appendix for the detailed methodology, market definition, and

Data Center Buildout Cost: Complete Pricing Guide

Data center buildout costs depend heavily on factors like facility size, geographic location, tier classification, and the workload type. Every project is different, but the industry has

Data Center Construction Costs Explained

Data center construction costs average \$10-\$12 million per MW, and AI-optimized facilities can reach as high as \$20+ million per MW. Mechanical, electrical, and

Senior Quantity Surveyor / Cost Manager - Data Center Construction

Lead cost management services for a large-scale, multi-phase data center construction program, acting as the primary client interface. Responsibilities include developing detailed cost plans, managing

Data Center Construction: Costs, Timeline, and Delivery Steps

Data center construction builds secure facilities for servers, power, and cooling systems. Get costs, timelines, key steps, and tips to manage your project.

Data Center Construction Costs 2026: \$/MW, \$/sqft & Drivers

Modular construction proves its worth by shortening project timelines, reducing risks with off-site fabrication, and streamlining the complexity of large-scale, high-density data center projects.

What is a hyperscale data center?

What is a hyperscale data center? A hyperscale data center is a massive data center that provides extreme scalability capabilities and is engineered for large-scale

Data Center Development Cost Guide

Our Data Center Development Cost Guide provides insights across U.S. markets, including building, material, land and labor costs and more.

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Data Centers and Water Consumption | Article | EESI

Data center developers are increasingly tapping into freshwater resources to quench the thirst of data centers, which is putting nearby

5 Factors for Assessing Total Data Center Cost

We break down the main data center cost variables, where they affect total spending, and how they impact total cost of ownership.

North America Data Center Trends H2 2024

CBRE explores top data center markets in North America, reporting on supply, demand, and pricing trends for 2024.

The data center construction boom | Allianz Commercial

Average-sized facilities now cost between \$500mn and \$2bn. While hyperscalers dominate headlines, mid-sized data centers (1-5MW) remain active as

Building data centers bigger, faster | McKinsey

For large-scale data centers, the labor shortage is further exacerbated: Thousands of workers are required to be on-site during peak construction,

Contact Us

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